

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended) A stream data processing apparatus for performing multiple processing steps during a processing of stream data, said stream data processing apparatus comprising:

 a transmitting-end processing section for performing a processing step, of one of said multiple processing steps, of processing data contained in the stream data, and transmitting the processed data;

 a receiving-end processing section for receiving the processed data transmitted from said transmitting-end processing section, for receiving empty data, and for performing another processing step, of a next one of said multiple processing steps, of processing the received data;

 a control section for transmitting a change signal, instructing to instruct a change of a subject of processing, the change signal being transmitted to said transmitting-end processing section and to said receiving-end processing section;

 a data temporary storage section for temporarily storing the processed data transmitted from said transmitting-end processing section;

 an empty data storage section for erasing any data written thereto in response to a data write, and for returning empty data in response to a data read; and

 a connection management section for (i) allowing the processed data transmitted from said transmitting-end processing section ~~and empty data~~ to be received by said receiving-end processing section, via said data temporary storage section ~~and said empty data storage section, respectively~~, by performing ~~the~~ a data write to and ~~the~~ a data read from said data temporary storage section, and (ii) allowing empty data to be received by said receiving-end processing section, via said empty data storage section, by performing the data write to and the data read from said empty data storage section, wherein:

 said control section, said transmitting-end processing section, said receiving-end processing section, and said connection management section are interconnected and configured such that, if a change signal is transmitted from said control section (i) to said transmitting-end processing section, said transmitting-end processing section is operable to output a transmitting-end clear request to said connection management section, and (ii) to said receiving-end

processing section, said receiving-end processing section is operable to output a receiving-end clear request to said connection management section; ~~and~~

 said connection management section is operable to ~~switch both~~ (i) switch a write destination ~~for of~~ the processed data transmitted from said transmitting-end processing section, the write destination being switched between said data temporary storage section and said empty data storage section, and (ii) switch a read source of any data, including the processed data transmitted from said transmitting-end processing section and empty data ~~returned from said empty data storage section~~, received by said receiving-end processing section, the read source being switched between said data temporary storage section and said empty data storage section;

the switching of the write destination and the switching of the read source being executed by said connection management section based depending on whether said connection management section is in (i) a normal operation state, (ii) a receiving-end clear wait state which exists after the transmitting-end clear request is received by said connection management section and until the receiving-end clear request is received by said connection management section, or (iii) a transmitting-end clear wait state which exists after the receiving-end clear request is received by said connection management section and until the transmitting-end clear request is received by said connection management section.

Claim 2 (Previously Presented) The stream data processing apparatus according to claim 1, wherein said connection management section is operable to:

 select said data temporary storage section as the write destination and the read source when said connection management section is in the normal operation state;

 erase the processed data stored in said data temporary storage section if the transmitting-end clear request or the receiving-end clear request is received when said connection management section is in the normal operation state;

 select said empty data storage section as the read source when said connection management section is in the receiving-end clear wait state; and

 select said empty data storage section as the write destination when said connection management section is in the transmitting-end clear wait state.

Claim 3 (Previously Presented) The stream data processing apparatus according to claim 1, wherein said connection management section is operable to:

select said data temporary storage section as the write destination and the read source when said connection management section is in the normal operation state;

erase the processed data stored in said data temporary storage section if the receiving-end clear request is received when said connection management section is in the normal operation state;

select said empty data storage section as the write destination when said connection management section is in the transmitting-end clear wait state;

wherein, when said connection management section is in the receiving-end clear wait state said connection management section is operable to:

designate as old data any data stored in said data temporary storage section when the transmitting-end clear request has been received;

select, as the write destination, a region in said data temporary storage section where the old data is not stored;

select, as the read source, a region in said data temporary storage section where the old data is stored while the old data is present; and

select said empty data storage section as the read source once the old data is no longer present; and

erase the old data if the receiving-end clear request is received when said connection management section is in the receiving-end clear wait state.

Claim 4 (Previously Presented) The stream data processing apparatus according to claim 1, wherein said transmitting-end processing section and said receiving-end processing section are operable to output the transmitting-end clear request and the receiving-end clear request, respectively, and perform transmission and reception of any data by using a data transmission section and a data reception section, respectively, which provides an accessing function to said connection management section.

Claim 5 (Previously Presented) The stream data processing apparatus according to claim 1, wherein said connection management section is operable to select, if any data transmitted from

said transmitting-end processing section cannot be written to said data temporary storage section, whether to (i) perform a process of immediately notifying an error to said transmitting-end processing section, or (ii) perform a process of waiting until it becomes possible to write any data to said data temporary storage section and perform a process of notifying said transmitting-end processing section a result of writing any data to said data temporary storage section.

Claim 6 (Previously Presented) The stream data processing apparatus according to claim 1, wherein said connection management section is operable to select, if any data to be received by said receiving-end processing section cannot be read from said data temporary storage section, whether to (i) perform a process of immediately transmitting an error to said receiving-end processing section, or (ii) perform a process of waiting until it becomes possible to read any data from said data temporary storage section and perform a process of notifying said receiving-end processing section a result of reading any data from said data temporary storage section.

Claim 7 (Previously Presented) The stream data processing apparatus according to claim 1, further comprising a data input section for receiving the stream data as an input.

Claim 8 (Previously Presented) The stream data processing apparatus according to claim 7, wherein said data input section is operable to receive the input of the stream data from a removable recording medium.

Claim 9 (Previously Presented) The stream data processing apparatus according to claim 1, further comprising a data output section for outputting the stream of data as a result of performing the multiple processing steps.

Claim 10 (Previously Presented) The stream data processing apparatus according to claim 9, wherein said data output section is operable to output, to a removable recording medium, the result of performing the multiple processing steps.

Claim 11 (Previously Presented) The stream data processing apparatus according to claim 1, wherein said transmitting-end processing section and said receiving-end processing section are

operable to output the transmitting-end clear request and the receiving-end clear request, respectively, independent of one another.